

In The Claims

1. (previously presented) An apparatus for generating outgoing data to be provided on an optical disk in a burst cutting area, the burst cutting area further comprising markings causing a marking frequency spectrum when reading out the burst cutting area, the apparatus comprises

a channel encoder for receiving processed data to supply the outgoing data having an outgoing data frequency spectrum with suppressed DC-content, and

a data processing device for generating the processed data to obtain the outgoing frequency spectrum wherein a frequency component causing interference with a low frequent component of the markings is suppressed or not present.

2. (previously presented) An apparatus for generating outgoing data as claimed in claim 1, wherein the data processing device is arranged for converting incoming data to obtain the processed data representing the incoming data and causing the outgoing frequency spectrum wherein all frequency components interfering with a low frequent component of the markings are suppressed or not present.

3. (currently amended) An apparatus for generating outgoing data ~~(OD)~~ as claimed in claim 1, wherein the markings ~~(3)~~ comprise a barcode.

4. (currently amended) An apparatus for generating outgoing data ~~(OD)~~ as claimed in claim 1, wherein the data processing device ~~(5)~~ and the channel encoder ~~(4)~~ are arranged to generate the outgoing data ~~(OD)~~ having at least a first and a second predetermined repetition frequency ~~(f1, f2)~~ when reading out the burst cutting

area ~~(2)~~, the first and the second predetermined repetition frequency ~~(f1, f2)~~ both being selected to not coincident with the low frequent component of the markings frequency spectrum—~~(MFS)~~.

5. (currently amended) An apparatus for generating outgoing data ~~(OD)~~ as claimed in claim 1, wherein the data processing device ~~(5)~~ is arranged for obtaining an amplitude of the frequency components of the data frequency spectrum ~~(DFS)~~ below a predetermined frequency ~~(f10)~~ being substantially smaller than an amplitude of the frequency components of the markings frequency spectrum—~~(MFS)~~, wherein the predetermined frequency is selected above the ground frequency ~~(f0)~~ of the markings—~~(3)~~.

6. (currently amended) An apparatus for generating outgoing data ~~(OD)~~ as claimed in claim 1, wherein the data processing device ~~(5)~~ comprises a pre-encoder ~~(5)~~ for pre-encoding incoming data ~~(ID)~~ by replacing data sequences ~~(DSI)~~ of the incoming data ~~(DI)~~ by data sequences of pre-coded data—~~(DSP)~~, the outgoing data ~~(OD)~~ comprises data sequences having a smaller low frequent content than the corresponding data sequences of the incoming data—~~(DSI)~~, a number of bits of the data sequence of the pre-coded data ~~(DSP)~~ being larger than a number of bits of a corresponding one of the data sequence of the incoming data—~~(DSI)~~.

7. (currently amended) An apparatus for generating outgoing data ~~(OD)~~ as claimed in claim 6, wherein the pre-coder ~~(5)~~ is arranged for coding the data sequences ~~(DSI)~~ 00, 01, 10, 11 of the incoming data ~~(DI)~~ into the respective corresponding processed data sequences ~~(DSP)~~ 1010, 0001, 0111, 0101 of the pre-coded data—~~(PD)~~.

8. (currently amended) An apparatus for generating outgoing data ~~(OD)~~ as claimed in claim 7, wherein the pre-coder ~~(5)~~ is further arranged for coding the data sequence ~~(DSI)~~ 10 10 of the incoming data ~~(DI)~~ into the respective corresponding processed data sequence ~~(DSP)~~ 0000 1000 of the pre-coded data—~~(PD)~~.

9. (currently amended) An apparatus for generating outgoing data ~~(OD)~~ as claimed in claim 2, wherein the apparatus further comprises a random data generator ~~(6)~~ for generating random data as the incoming data—~~(DI)~~.

10. (currently amended) An apparatus for generating outgoing data ~~(OD)~~ as claimed in claim 1, wherein the channel encoder ~~(4)~~ is a 1,7 PP encoder.

11. (currently amended) An apparatus for generating outgoing data ~~(OD)~~ as claimed in claim 2, wherein the incoming data ~~(ID)~~ comprises a layer indication ~~(LI)~~ for indicating a layer of the optical disk ~~(1)~~ on which the outgoing data ~~(OD)~~ is provided.

12 . (currently amended) An apparatus for generating outgoing data ~~(OD)~~ as claimed in claim 1, wherein

 incoming data ~~(ID)~~ comprises a layer indication ~~(LI)~~ for indicating a layer of the optical disk ~~(1)~~ on which the outgoing data ~~(OD)~~ is or has to be provided, the incoming data ~~(ID)~~ further comprises random data—~~(RDA)~~,

 a pre-encoder ~~(5)~~ for pre-encoding the incoming data ~~(ID)~~ by replacing data sequences ~~(DSI)~~ of the incoming data ~~(DI)~~ by data sequences of pre-coded data—~~(DSP)~~, and

 the channel encoder ~~(4)~~ receiving the data sequences of pre-coded data—~~(DSP)~~.

13. (currently amended) An apparatus for generating outgoing data
as claimed in claim 12, wherein the incoming data ~~(ID)~~ is divided into frames selected to obtain the processed data having a standard frame structure being also used for user data outside the burst cutting area—(2).

14. (currently amended) An apparatus for generating outgoing data
as claimed in claim 12, wherein the incoming data ~~(ID)~~ comprises a 4 bit layer nibble as the layer indication ~~(LI)~~ and 616 bits random data to form a 77.5 byte data frame.

15. (currently amended) An apparatus for generating outgoing data
as claimed in claim 13, wherein the 616 bits random data of the data frame are divided in 1 group of 31 bits and 13 groups of 45 bits, the 1 group of 31 bits further comprises the 4 bit layer nibble and a 10 bit Frame Sync, each of the 13 groups of 45 bits further comprises a DC-control bit to obtain a BCA-frame of 644 bits.

16. (currently amended) An apparatus for generating outgoing data
as claimed in claim 12, wherein the pre-encoder ~~(5)~~ is arranged for coding the data sequences ~~(DSI)~~ 00, 01, 10, 11 and 10 10 of the incoming data ~~(DI)~~ into the respective corresponding processed data sequences ~~(DSP)~~ 1010, 0001, 0111, 0101 and 0000 1000 of the pre-coded data ~~(PD)~~ to obtain a standard frame of 1288 bits being also used for user data outside the burst cutting area—(2).

17. (currently amended) An apparatus for generating outgoing data
as claimed in claim 12, wherein the channel encoder ~~(4)~~ is a

standard 1,7 PP encoder being also used for user data outside the burst cutting area—(2).

18. (currently amended) An apparatus for generating outgoing data ~~(OD)~~ as claimed in claim 17, wherein the 1,7 PP encoder receives in the burst cutting area ~~(2)~~ only a Frame Sync signature which occurs in the outgoing data ~~(OD)~~ as 100 101, 111 001, or 000110.

19. (currently amended) A method of creating outgoing data ~~(OD)~~ to be provided on an optical disk ~~(1)~~ in a burst cutting area—(2), the burst cutting area ~~(2)~~ further comprising markings ~~(3)~~ causing a marking frequency spectrum ~~(MFS)~~ when reading out the burst cutting area—(2), the method comprises

channel coding ~~(4)~~ receiving processed data ~~(PD)~~ to supply the outgoing data ~~(OD)~~ having an outgoing data frequency spectrum ~~(DFS)~~ with suppressed DC-content, and

data processing ~~(5)~~ for generating the processed data ~~(PD)~~ to obtain an outgoing frequency spectrum ~~(DFS)~~ wherein a frequency component causing interference with a low frequent component of the markings ~~(3)~~ is suppressed or not present.

20. - 21. (canceled)

22. (currently amended) An apparatus for manufacturing an optical disk ~~(1)~~ with a burst cutting area—(2), the burst cutting area ~~(2)~~ comprising markings ~~(3)~~ causing a marking frequency spectrum ~~(MFS)~~ when reading out the burst cutting area—(2), the apparatus comprises,

a channel coder ~~(4)~~ for receiving processed data ~~(PD)~~ to supply the outgoing data ~~(OD)~~ having an outgoing data frequency spectrum ~~(DFS)~~ with suppressed DC-content, and

a data processing device ~~(5)~~ for generating the processed data ~~(PD)~~ to obtain an outgoing frequency spectrum ~~(DFS)~~ wherein a frequency component causing interference with a low frequent component of the markings ~~(3)~~ is suppressed or not present.

23. (currently amended) An apparatus for manufacturing an optical disk ~~(1)~~ as claimed in claim 22, wherein the apparatus further comprises means for providing grooves in the burst cutting area ~~(2)~~.

24. - 26. (canceled)